



UNITED STATES PATENT AND TRADEMARK OFFICE

rw
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,330	04/01/2004	Carl Rajsic	ALC 3124	5344

7590 08/08/2007
KRAMER & AMADO, P.C.
1725 Duke Street, Suite 240
Alexandria, VA 22314

EXAMINER

MOORE JR, MICHAEL J

ART UNIT	PAPER NUMBER
----------	--------------

2616

MAIL DATE	DELIVERY MODE
-----------	---------------

08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/814,330	Applicant(s) RAJSIC, CARL	
	Examiner Michael J. Moore, Jr.	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 4/1/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims **11 and 13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claims **11 and 13** are directed to a "computer-readable medium" which is a physical entity that comprises "instructions" which are not physical. Therefore, it is unclear from the claim language how a physical entity comprises only something non-physical. It is suggested by Examiner that Applicant use the following language: "A computer-readable medium encoded with a computer program, the computer program comprising".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims **1, 4, 5, 7, and 9-13** are rejected under 35 U.S.C. 102(e) as being anticipated by Hall, Jr. et al. (U.S. 7,130,393) (hereinafter "Hall"). *Hall* teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim 1, "a method of establishing a secure Layer-3 connection across an ATM network, the Layer-3 connection having a first endpoint at an egress port of an originating multiservice switch (MSS) and a second endpoint at an ingress port of a terminating MSS" is anticipated by the SVC for VtoA establishment performed among calling party 20 (first endpoint), called party 22 (second endpoint), ATM edge switch 14 (originating multiservice switch), and MSCP 44 (terminating MSS) as shown in Figure 1.

"Configuring the terminating MSS with anticipated security information" is anticipated by MSCP 44 (terminating MSS) gathering called party closed user group identifiers (anticipated security information) as spoken of on column 19, lines 57-59.

"At the originating MSS, generating a setup message including embedded security information" is anticipated by the generation of an input ATM setup message including a VtoA designator and called party number parameter (embedded security information) as spoken of on column 12, lines 29-34.

"Sending the setup message to the terminating MSS" is anticipated by the interception of the input ATM setup message by ASIP 40 and subsequent forwarding of information to MSCP 44 (terminating MSS) as spoken of on column 19, lines 44-48.

Art Unit: 2616

“At the terminating MSS, extracting the embedded security information from the setup message” is anticipated by the reception (extraction) of ATM setup message information by MSCP 44 and the subsequent retrieval of corresponding calling party closed user group identifiers as spoken of on column 19, lines 46-50.

“Determining whether the embedded security information matches the anticipated security information” is anticipated by the determination of whether a closed user group identifier (security information) that is common (match) to both the calling party and the called party exists as shown in step 508 of Figure 5, and spoken of on column 20, lines 1-22.

Lastly, “if the embedded security information matches the anticipated security information, establishing the Layer-3 connection” is anticipated by the successful establishment of the VToA call 520 in response to a positive response to steps 508, 510, and 514 of Figure 5 as spoken of on column 20, lines 61-64.

Regarding claim 4, “wherein the embedded security information and the anticipated security information are Closed User Group Interlock Codes” is anticipated by the calling party and called party closed user group identifiers spoken of on column 19, lines 48-56.

Regarding claim 5, “wherein the Layer-3 connection is established by an originating user belonging to a configured set of originating users, and wherein the embedded security information and the anticipated security information are associated with the configured set of originating users” is anticipated by calling party 20 (originating

Art Unit: 2616

user) that generates an ATM setup message as shown in Figure 1 and spoken of on column 12, lines 29-34.

Regarding claim 7, "wherein the Layer-3 connection is established to a terminating user belonging to a configured set of terminating users, and wherein the embedded security information and the anticipated security information are associated with the configured set of terminating users" is anticipated by called party 22 (terminating user) that receives an ATM setup message as shown in Figure 1 and spoken of on column 15, lines 1-6.

Regarding claim 9, "at the originating MSS, setting a value of a flag in the setup message to indicate that the setup message includes the embedded security information" is anticipated by the VToA designator (flag) in the generated ATM setup message that indicates a request to set up an SVC for VToA service as spoken of on column 12, lines 29-34 and 65-67.

Lastly, "at the terminating MSS, reading the value of the flag before extracting the embedded security information" is anticipated by the extraction of information from the received ATM setup message and subsequent retrieval of closed user group identifiers (security information) as spoken of on column 19, lines 44-56.

Regarding claim 10, "An originating multiservice switch (MSS) for establishing a secure Layer-3 connection across an ATM network to a terminating MSS, comprising a call control for generating a Layer-3 connection setup message including embedded security information, and for sending the setup message to the terminating MSS" is anticipated by the ATM edge switch 14 (originating multiservice switch) that intercepts

Art Unit: 2616

an ATM setup message and extracts information (embedded security information) from the message for subsequent forwarding to MSCP 44 (terminating MSS) as spoken of on column 19, lines 44-56.

Regarding claim 11, "instructions for generating a Layer-3 connection setup message to be sent from an originating switch (MSS) to a terminating MSS; and instructions for embedding security information within the setup message" is anticipated by the ATM edge switch 14 (originating multiservice switch) that intercepts an ATM setup message and extracts information (embedded security information) from the message for subsequent forwarding to MSCP 44 (terminating MSS) as spoken of on column 19, lines 44-56, as well as the data structure (instructions) stored on a storage media used for the VToA call establishment spoken of on column 4, lines 39-49.

Regarding claim 12, "a terminating multiservice switch (MSS) for establishing a secure Layer-3 connection across an ATM network from an originating MSS" is anticipated by MSCP 44 (terminating multiservice switch) of Figure 1 used for the establishment of an SVC VToA call as spoken of on column 14, lines 10-17.

"Stored anticipated security information" is anticipated by MSCP 44 (terminating MSS) gathering called party closed user group identifiers (anticipated security information) as spoken of on column 19, lines 57-59.

"Means for querying a comparator of two pieces of security information" and "a call controller for receiving a Layer-3 connection setup message, for extracting embedded security information from the setup message, for querying the comparator to determine whether the embedded security information corresponds to the anticipated

Art Unit: 2616

security information" is anticipated by MSCP 44 (means, comparator, call controller) that determines whether a closed user group identifier (security information) that is common (match) to both the calling party and the called party exists as shown in step 508 of Figure 5, and spoken of on column 20, lines 1-22.

Lastly, "establishing the Layer-3 connection in the event that the embedded security information corresponds to the anticipated security information" is anticipated by the successful establishment of the VToA call 520 in response to a positive response to steps 508, 510, and 514 of Figure 5 as spoken of on column 20, lines 61-64.

Regarding claim 13, "instructions for receiving a Layer-3 connection setup message received from an originating multiservice switch" is anticipated by MSCP 44 that receives ATM setup message information as spoken of on column 19, lines 44-48.

"Instructions for extracting embedded security information from the setup message" is anticipated by the reception (extraction) of ATM setup message information by MSCP 44 and the subsequent retrieval of corresponding calling party closed user group identifiers as spoken of on column 19, lines 46-50.

"Instructions for retrieving anticipated security information" is anticipated by MSCP 44 (terminating MSS) gathering called party closed user group identifiers (anticipated security information) as spoken of on column 19, lines 57-59.

"Instructions for determining whether the embedded security information corresponds to the anticipated security information" is anticipated by the determination of whether a closed user group identifier (security information) that is common (match)

to both the calling party and the called party exists as shown in step 508 of Figure 5, and spoken of on column 20, lines 1-22.

Lastly, "instructions for establishing a Layer-3 connection in the event that the embedded security information corresponds to the anticipated security information" is anticipated by the successful establishment of the VToA call 520 in response to a positive response to steps 508, 510, and 514 of Figure 5 as spoken of on column 20, lines 61-64, as well as the data structure (instructions) stored on a storage media used for the VToA call establishment spoken of on column 4, lines 39-49.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims **2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall, Jr. et al. (U.S. 7,130,393) (hereinafter "Hall") in view of Shirakawa (U.S. 2002/0064159).

Regarding claims **2 and 3**, *Hall* teaches the method of claim 1. *Hall* also teaches where the closed user group identifiers (security information) is associated with the calling party and called party as spoken of on column 19, lines 48-59.

While *Hall* also teaches the use of switched virtual circuit (SVC) connections, *Hall* does not explicitly teach the use of Soft Permanent Virtual Circuit connections.

However, *Shirakawa* teaches the use of SPVC connections in an ATM environment as spoken of on page 1, paragraph 10.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to use the SPVC teachings of *Shirakawa* in place of the SVC teachings of *Hall* in order to provide an end-to-end ATM connection with fault tolerance as spoken of on page 1, paragraph 10 of *Shirakawa*.

8. Claims **6 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall, Jr. et al. (U.S. 7,130,393) (hereinafter "Hall") in view of Bi et al. (U.S. 6,757,278) (hereinafter "Bi").

Regarding claims **6 and 8**, *Hall* teaches the method of claim 1. *Hall* does not teach connection establishment through IP interface addresses at the originating and terminating multiservice switches and where the security information is associated with these IP interface addresses.

However, *Bi* teaches a secure ATM system where IP-adapted SS7 traffic may be allowed to traverse the ATM network via IP interfaces as spoken of on column 7, lines 19-23.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to combine the IP teachings of *Bi* with the teachings of *Hall* in order to provide secure ATM connection establishment in an IP-over-ATM environment.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cunetto et al. (U.S. 7,187,678) is another reference considered pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached at (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Moore, Jr.
Examiner
Art Unit 2616


8/6/07
WING CHAN

SUPERVISORY PATENT EXAMINER

mjm/M